

**Before the  
FEDERAL COMMUNICATIONS COMMISSION  
Washington, D.C. 20554**

In the Matter of	)	
	)	
Digital Audio Broadcasting Systems	)	MM Docket No. 99-325
And Their Impact On the Terrestrial Radio	)	
Broadcast Service	)	
	)	

**REPLY COMMENTS OF THE  
CONSUMER ELECTRONICS ASSOCIATION**

The Consumer Electronics Association (“CEA”), by its attorneys, hereby submits reply comments in response to the *Public Notice* issued by the Federal Communications Commission on December 19, 2001 in the above-captioned docket.<sup>1</sup> CEA takes this opportunity to: (1) clarify that the National Radio Systems Committee’s (“NRSC”) evaluation report on iBiquity Digital Corporation’s In-Band On-Channel (“IBOC”) FM Digital Audio Broadcasting (“DAB”) system is not a standard unto itself and that a single, open standard is required for both the audio and auxiliary data DAB functions, (2) reiterate the importance of requiring audio programming to be carried on the IBOC DAB signal, and (3) offer its assistance as co-sponsor of the NRSC in the development of an IBOC DAB standard, or in performing additional testing and/or evaluation.

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<sup>1</sup> See *Comment Sought on National Radio Systems Committee DAB Subcommittee’s “Evaluation of the iBiquity Digital Corporation IBOC System,”* Public Notice, DA 01-2932 (rel. Dec. 19, 2001).

**I. AN FM IBOC DAB STANDARD IS NEEDED TO ENSURE UBIQUITOUS, FAIR, AND REASONABLE ACCESS TO IBOC DAB TECHNOLOGY**

Some of the parties filing initial comments may be under the misconception that the NRSC's evaluation report on iBiquity's FM IBOC DAB system is a proposed industry standard when they ask the Commission to promptly endorse it as the FM IBOC standard for the U.S. Based on this apparent confusion, CEA wishes to clarify that the NRSC's evaluation is not a standard or a proposed standard unto itself. Rather, the NRSC submission merely provided an analysis of the testing performed on the iBiquity FM IBOC system.

It is imperative that a formal technical standard be devised (covering both digital audio and auxiliary data capabilities) using accepted standards processes and that the standard be fully endorsed by the Commission. An FCC-endorsed standard for FM IBOC is necessary for several reasons. First, an established standard specifying the technical parameters of the IBOC DAB signal will give manufacturers much needed confidence to invest in and develop IBOC equipment that can be used throughout the U.S. Without such clarity, manufacturers will be reluctant to devote significant resources to IBOC DAB implementation. The clarity provided by a standard will also give consumers confidence in the long-term usefulness of their IBOC equipment. Second, a single standard is needed to ensure that DAB deployment is as ubiquitous, successful, and durable as the initial analog deployment was. Otherwise, competing standards may make DAB a more difficult consumer proposition and prevent DAB from reaching its true potential. Third, a standard is needed to ensure that manufacturers have access to FM IBOC DAB technology under reasonable and non-discriminatory terms.

CEA believes that, as part of the IBOC DAB standard, rules regarding auxiliary data capabilities should also be created. CEA concurs with the comments submitted by Impulse

Radio on this topic.<sup>2</sup> Auxiliary data standards are needed to prevent the “balkanization” and underutilization that currently characterize analog subcarrier services and the Radio Broadcast Data Service (“RBDS”). Uniformity and compatibility will foster auxiliary data services provided by digital broadcasters and will discourage proprietary uses that do not benefit the public at large.

The FM IBOC DAB standard should be developed using criteria identical to ANSI-accredited open standards processes. As an integral part of the standards setting process, all intellectual property included in the standard must be available either free of charge or licensed to all without discrimination and under reasonable terms. Therefore, as part of the FM IBOC DAB standardization process, iBiquity and any other relevant parties should be required to provide assurances that they will provide reasonable access to their intellectual property, patents, and other proprietary technologies required to implement the FM IBOC DAB standard. This will ensure that all manufacturers have equal access to compete in the DAB arena, and will in fact encourage such competition.

If formal standardization does not occur, many manufacturers may be effectively “locked out” of the IBOC market. iBiquity’s comments discuss its strategic relationships with entities involved in all aspects of IBOC DAB, including broadcasters, manufacturers, and retailers.<sup>3</sup> Without reasonable access to iBiquity’s intellectual property, other manufacturers may be foreclosed from competing in the IBOC market, to the detriment of competition and consumers. Further, the Commission should take note of the fact that many of the commenters in this phase of the proceeding are investors in iBiquity or have entered into special contractual or licensing

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<sup>2</sup> See comments of Impulse Radio at 6-7.

<sup>3</sup> See iBiquity comments at 2.

agreements with iBiquity.<sup>4</sup> While their input to the proceeding is valuable and should be fully considered, the Commission should also consider the interests of parties who wish to enter the IBOC market and do not currently have an established relationship with iBiquity.

Finally, CEA concurs with NAB's request that the Commission clarify how IBOC DAB standardization should occur, and what specific role, if any, the Commission would like the NRSC to have in the process. CEA's extensive experience with the creation of open technical standards puts it in a unique position to assist the industry in finalizing an FM IBOC DAB standard. CEA reiterates that it stands ready and able to assist the Commission in any way possible, if the Commission so desires.

## **II. THE COMMISSION SHOULD ENSURE THAT THE MAIN AUDIO PROGRAMMING IS TRANSMITTED OVER THE IBOC DAB SIGNAL**

Several commenters expressed opinions regarding the information that is carried over the IBOC DAB signal. They argue that additional programming services and/or alternative data services could and should be provided as primary uses of DAB streams. As discussed above, CEA supports the appropriate use and standardization of auxiliary data services on IBOC DAB. It is important, however, for the Commission ensure that the main audio signal is transmitted over the IBOC DAB signal as well. Otherwise, the use of FM IBOC DAB may prematurely extend beyond its initial purpose to the detriment of free, over-the-air broadcasting. Even iBiquity recognizes this potential problem in its initial comments, when it asks the FCC to reject the consideration of fees associated with datacasting services.<sup>5</sup>

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<sup>4</sup> The following commenters clearly identified themselves as investors in iBiquity: ABC, Inc., Bonneville Intl. Corp., Clear Channel Communications, Cox Radio, Inc., Emmis Communications, and Texas Instruments. The following parties clearly identified themselves as licensees or parties to contractual agreements with iBiquity: Harris Corp., Nautel, ALPS Electric (U.S.A.), Inc., Toko America, and Visteon Corp. Radio One, Infinity Broadcasting, Kenwood, and JVC were also listed on iBiquity's list of strategic partners.

<sup>5</sup> See iBiquity comments at 11.

A requirement to transmit the main audio programming over the DAB signal will ensure that broadcasters do not forego audio programming altogether and instead lease out their DAB capacity for the provision of proprietary data services. The primary policy goals of DAB support this position. In the *DAB NPRM*, the Commission noted that its fundamental goals were to “provide vastly improved radio service to the public,” “support[] a vibrant and vital terrestrial radio service for the public,” and to “ensure that the introduction of DAB does not weaken the vitality of ... free, over-the-air radio.”<sup>6</sup>

There is no doubt that IBOC terrestrial DAB should be expeditiously implemented to help place terrestrial broadcasters on the same competitive footing as Satellite Digital Audio Radio Service (“SDARS”) and other providers of digital audio programming. IBOC DAB, however, should not be misconstrued and misused for services to the exclusion of the improvement and perpetuation of free, over-the-air audio broadcasting. If the Commission decides, as several commenters request, to endorse IBOC DAB and allow broadcasters to implement DAB prior to resolving the standards and service/technical rules issues, the Commission should institute a requirement that the main audio stream must be included in the digital stream. This will allow the prompt introduction of IBOC DAB while preserving the technology for free over-the-air audio broadcasting until a properly informed decision can be made regarding exclusive data use of DAB.

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<sup>6</sup> See *In the Matter of Digital Audio Broadcasting Systems And Their Impact On the Terrestrial Radio Broadcast Service*, Notice of Proposed Rulemaking, MM Docket No. 99-325, 12 FCC Rcd 1722 ¶¶15, 16 (1999)(“*DAB NPRM*”).

### **III. IT IS PREMATURE FOR THE COMMISSION TO ENDORSE ALL-DIGITAL IBOC DAB**

Some commenters suggest that the Commission should promptly endorse iBiquity's all-digital technology concurrently with and in addition to endorsing iBiquity's hybrid IBOC system.<sup>7</sup> CEA believes that it would be premature for the Commission to make the requested determination. Significantly, the NRSC has neither performed any testing nor evaluated the results of any testing that has been performed on an all-digital IBOC DAB system. iBiquity acknowledges as much in its comments.<sup>8</sup> As such, the results of iBiquity's all-digital testing has not been confirmed or comprehensively evaluated by an objective industry group. This is not to say, however, that the NRSC would not ultimately support and recommend iBiquity's all-digital FM IBOC system. Further, the Commission has not sought public comment on an all-digital FM IBOC DAB system.

Commission endorsement of hybrid analog/digital IBOC operations satisfies both the industry's desire to quickly commence terrestrial DAB operations and protects the public interest by allowing the Commission to reach an informed decision about all-digital IBOC implementation at an appropriate time. Therefore, CEA believes that it is premature and ill advised from both a procedural and technical standpoint for the Commission to immediately endorse both the hybrid and all-digital modes of iBiquity's system.

### **IV. CONCLUSION**

While CEA agrees that the Commission should take swift action to allow the commencement of IBOC DAB services in the U.S., it believes that the Commission should take appropriate steps to ensure that free, over-the-air audio broadcasting is preserved and that all

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<sup>7</sup> See, e.g., comments of Infinity Broadcasting and iBiquity.

manufacturers have adequate and reasonable access to IBOC technologies. CEA looks forward to assisting the Commission and participating in efforts to help the industry reach its goal of rapid and successful deployment of IBOC DAB.

Respectfully submitted,

**CONSUMER ELECTRONICS ASSOCIATION**

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<sup>8</sup> See iBiquity comments at 13.